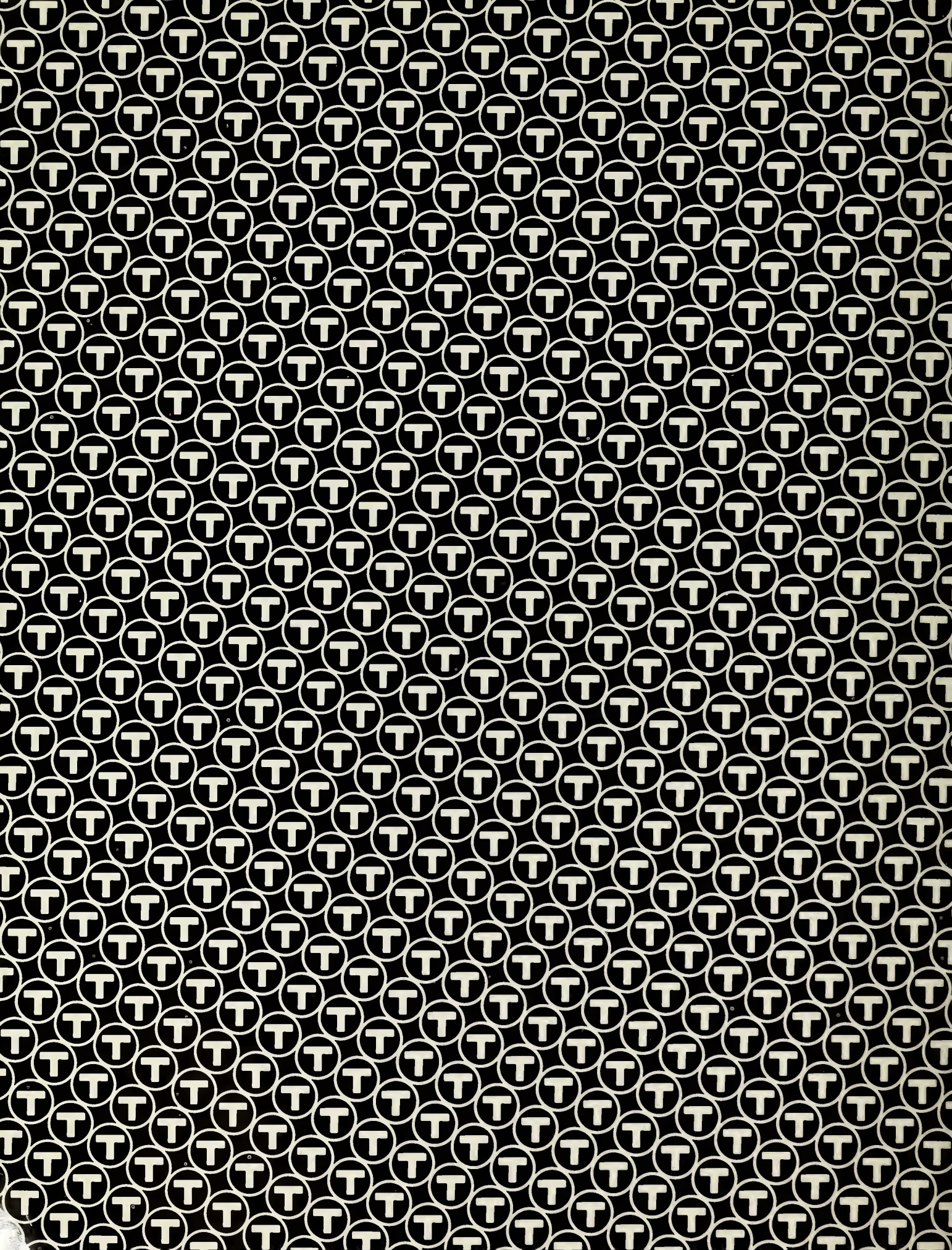




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Third Annual Report of the Board of Directors of the Massachusetts Bay Transportation Authority

(covering the period September 1, 1966 - September 30, 1967)

TO:
His Excellency the Governor,
Advisory Board to the Massachusetts Bay
Transportation Authority, and
The General Court

In accordance with the requirements of Section 5 (h) of
Chapter 161A of the General Laws, as modified by Chapter 650
of the Acts of 1965, the Directors of the Massachusetts Bay
Transportation Authority herewith render the third report
of the Authority which covers the results of operations for
the fiscal period September 1, 1966 through September 30, 1967.

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A Foreword on the dual nature of our responsibility

The legislation creating the Massachusetts Bay Transportation Authority charges it with two major responsibilities:

1. "the duty to develop, finance and operate the mass transportation facilities and equipment in the public interest . . ."
2. "the duty to achieve maximum effectiveness in complementing other forms of transportation in order to promote the general economic and social well-being of the area and of the commonwealth."

Charles M. Haar, Assistant Secretary for Metropolitan Development, U.S. Department of Housing and Urban Development, put it this way, "Put starkly, transportation is an area's architect and physician. Not only does it help determine the physical shape of the area; it touches the daily lives of its citizens, contributing in the most fundamental way to their productivity, health, and happiness. It defines the area's future, how far it is going, how fast it will get there."

Secretary of the Department of Housing and Urban Development, Robert C. Weaver, sums it up nicely as "the dual premise that we must serve not only people in transit, but also cities in transition."

For the Massachusetts Bay Transportation Authority this means, simply — yet awesomely — the planning, coordination, and construction of a \$369 million first-phase program of modernization and expansion. One which will include 4 major rapid transit extensions and the modernization of 40 stations. All the while continuing to operate the existing system serving 180,000,000 passengers a year — 21 hours a day, 7 days a week, 365 days a year.

The Authority's ability to meet its dual responsibility directly affects the economic and social well-being of the Commonwealth.

The period September 1, 1966 through September 30, 1967 covered by this Third Annual Report of the Board of Directors of the Authority has been one primarily of success.

In the areas of planning, coordination and construction we have moved ahead:

- ... first comprehensive program for mass transportation approved.
- ... first bond issue negotiated in amount of \$110,000,000.
- ... received HUD award for "outstanding contributions to inter-governmental relations." The citation reads in part: "in recognition of contributions in the field of urban development. In furthering the national objective of helping to improve the living environment of our citizens."

... construction well along on the South Shore and Haymarket-North rapid transit extensions and on the Station Modernization Program.

This third fiscal period has been a period of innovation. And a period of realization. The realization that we must plan not just for tomorrow, but for an unending succession of tomorrows.

But we cannot ignore the present either. Authority employees go to work every day. Bus drivers, file clerks, carpenters, stenographers, engineers, nurses, motormen, lawyers . . . some 6,000 employees. And trackless trolleys, streetcars, rapid transit cars, and buses . . . over 1,500 vehicles must run smoothly.

This very day the Authority will transport over half a million people.

And tomorrow.

Summary of the net cost of service from September 1, 1966 through September 30, 1967

Total income for the period was \$48,619,865.46. Total expenses for the period were \$81,911,008.41. This total includes various fixed charges and the sum of \$54,732,403.45 for wages and fringe benefits.

The difference between total income and total expenses is \$33,291,142.95, representing the cost of service in excess of income for the thirteen month fiscal period.

This figure, less state financial contract assistance of \$6,419,734.46, fuel tax reimbursement of \$245,789.15, and an unreimbursed deficit relating to depreciation in the amount of \$2,149,484.00, brings the net assessable cost of service for the 79 communities of the Authority district to \$24,476,135.34.

In addition to the net cost of service, there are three other items which must be considered by the 79 cities and towns in their 1968 account settlement with the Commonwealth of Massachusetts. These are illustrated by the following table:

Net Cost of Service	\$24,476,135.34
Interest Charged by State Treasurer on Temporary Borrowings (Estimated)	\$977,000.00
Expenses of Boston Metropolitan District	\$16,000.00
TOTAL	\$25,469,135.34
Less Pupils' Reimbursement Chapter 71, Section 7B (Estimated)	\$1,200,000.00
NET COST TO COMMUNITIES	\$24,269,135.34

The following table illustrates the Authority's net cost of service including all elements of cost for the fiscal operation, and apportionment of these costs by express and local service, according to the formulae contained in the legislation establishing the Authority.

Massachusetts Bay Transportation Authority
Statement of Net Cost of Service — Loss — by Express and Local
Fiscal Period September 1, 1966 to September 30, 1967

	Express Service	Local Service	Total
Income:			
Revenue from Transportation	\$25,901,237.99	\$17,381,588.22	\$43,282,826.21
Revenue from Other Rwy. Operations	669,098.95	181,712.97	850,811.92
Non-Operating Income	3,536,901.14	949,326.19	4,486,227.33
TOTAL INCOME	30,107,238.08	18,512,627.38	48,619,865.46
Operating Wages and Fringe Benefits:			
Wages	20,301,501.87	26,911,293.18	47,212,795.05
M.B.T.A. Pensions	1,289,881.34	1,576,521.64	2,866,402.98
Social Security Taxes	770,356.18	941,546.43	1,711,902.61
Workmen's Compensation	125,949.93	293,883.18	419,833.11
Accident and Sickness Insurance	148,033.76	180,930.16	328,963.92
Group Life Insurance	177,253.64	216,643.29	393,896.93
Blue Cross — Blue Shield	701,313.43	857,160.80	1,558,474.23
Unemployment Insurance	7,122.60	8,705.40	15,828.00
Uniform and Work Clothes	97,233.99	127,072.63	224,306.62
TOTAL OPERATING WAGES AND FRINGE BENEFITS	23,618,646.74	31,113,756.71	54,732,403.45
Material and Other Items	2,441,305.00	2,999,571.00	5,440,876.00
Injuries and Damages	453,845.45	1,461,346.33	1,915,191.78
Depreciation	1,584,545.00	564,939.00	2,149,484.00
Interest on Unfunded Debt	1,183,732.00	1,013,332.68	2,197,064.68
Fuel	949,763.70	860,609.34	1,810,373.04
Taxes (Other than included above)	4,929.61	370,479.07	375,408.68
Railroad Commuter Subsidy	1,821,559.97	—	1,821,559.97
Middlesex & Boston Subsidy	—	397,160.00	397,160.00
TOTAL OPERATING EXPENSES AND TAXES	32,058,327.47	38,781,194.13	70,839,521.60
Fixed Charges:			
Interest on Funded Debt (M.T.A.)	3,109,851.94	1,101,770.50	4,211,622.44
Interest on Funded Debt (M.B.T.A.)	2,250,242.14	169,399.74	2,419,641.88
Payment on Funded Debt (M.T.A.)	2,292,108.98	1,713,587.44	4,005,696.42
Cambridge Subway Rental	405,007.92	—	405,007.92
Miscellaneous Debits (M.T.A.)	8,668.27	6,732.97	15,401.24
Bank Service Charges (M.B.T.A.)	13,102.23	1,014.68	14,116.91
TOTAL FIXED CHARGES	8,078,981.48	2,992,505.33	11,071,486.81
TOTAL CURRENT EXPENSES	40,137,308.95	41,773,699.46	81,911,008.41
COST OF SERVICE IN EXCESS OF INCOME	10,030,070.87	23,261,072.08	33,291,142.95
Less:			
State Financial Contract Assistance-M.T.A.	3,250,000.00	—	3,250,000.00
State Financial Contract Assistance-M.B.T.A.	1,467,348.75	63,590.63	1,530,939.38
Gas & Diesel Taxes Reimbursable	—	245,789.15	245,789.15
State Financial Contract Assistance on Railroad Subsidy	1,638,795.08	—	1,638,795.08
NET COST OF SERVICE — LOSS	3,673,927.04	22,951,692.30	26,625,619.34
Less — Unreimbursed Deficit	1,584,545.00	564,939.00	2,149,484.00
NET ASSESSABLE COST OF SERVICE	\$2,089,382.04	\$22,386,753.30	\$24,476,135.34

NOTE: During this fiscal period the Authority lost the dedicated service of one of the original members of its Board of Directors with the retirement of Mr. George L. Anderson.

Mr. Anderson's position was filled by Mr. Forrest I. Neal, Jr., sworn in as a member of the Board of Directors by Governor John A. Volpe, August 15, 1967.

In May of 1967 Judge Charles C. Cabot was reappointed as Chairman of our Board. His present appointment expires in March of 1972.

At the Board Meeting of September 20, 1967, as this fiscal period was drawing to a close, General Manager Rush B. Lincoln, Jr. tendered his resignation. The Board of Directors authorized the appointment of Mr. Leo J. Cusick, Director, Urban Transportation Administration, U.S. Department of Housing and Urban Development, to succeed General Lincoln as General Manager of the Authority subject to the approval of the Advisory Board. The Advisory Board approved the appointment of Mr. Cusick, who became General Manager of the Authority November 1, 1967.

Comprehensive program for mass transportation

Just after the start of the third fiscal period the Authority's Advisory Board approved the Master Plan, our first Comprehensive Program for Mass Transportation.

The Development Program Committee of the Advisory Board recommended some modifications of the plan submitted. The Authority has made a careful study of the suggestions made.

At this writing the management and Board of the Authority have not formally revised the Master Plan. The priorities originally established are being studied in the light of changing requirements — to be recast in their appropriate chronological sequence and financial status.

The modernization and expansion program established by our Master Plan has proceeded with all possible speed in this fiscal period.

Organization of the authority

The organization of a company is inadequately represented by a schematic representation of boxes, lines, and titles. Effective organization is more; it is the lifeblood, the sinew and flesh of any undertaking.

And so the Authority, in its continued efforts to maintain its corporate health and efficiency, has, during the third fiscal period, refined its organizational structure.

Upon successful completion of our first Comprehensive Program for Mass Transportation, and resultant excursion into design and construction phases of modernization and expansion, we recognized that the thrust of our planning effort was shifting from the conceptual to evaluation and support of work accomplished.

Therefore, the Board of Directors approved the creation of the Operations Directorate. This required regrouping of organizational elements in the Planning, and Engineering and Construction Departments.

Effective the first day of the fourth fiscal period, October 1, 1967, the Operations Directorate contains the following elements:

- ... Transportation Operations.
- ... Equipment Engineering and Maintenance.
- ... Schedules.

- ... Private Carrier Operations.
- ... Industrial Engineering Office.
- ... Operations Planning.
- ... Station Sanitation.

In other organizational refinements the Authority: ... eliminated the Facilities Engineering Department, transferring personnel to the newly-named Department of Engineering, and to the Plant Engineering and Maintenance Department.

... transferred the Central Area Systems Study project from the Department of Research and Development to the Department of Engineering and Construction.

... redefined the responsibilities of the Research and Development Department, formerly Planning and Research, as dictated by our emphasis on design, construction, and operation of new facilities (as noted above).

Departmental progress reports

MATERIALS DEPARTMENT

The improved system of inventory control installed during the Authority's second fiscal accounting period has reaped benefits in this period. Because of it we have been able to remove more than seven thousand parts from our parts inventory list.

Several new procedures have been instituted during the period under review:

... a new system for expediting monthly reports to the Director of Materials indicating vendors' progress in meeting Authority delivery requirements.

... frequent visits by Authority buyers to vendors' properties to familiarize them with the manufacturing processes.

... a substitute parts feasibility study which effected substantial savings on some thousand items.

... a new system of Contracting Purchasing, sometimes referred to as Stockless Purchasing, will allow each department to obtain items directly from the vendor as needed — thus eliminating individual departmental inventories.

During 1967 the Authority requested proposals and placed orders for a total of 125 air-conditioned buses. Also, proposals were obtained for the South Shore rapid transit car.

RESEARCH AND DEVELOPMENT DEPARTMENT

As mentioned earlier in this report, the direction of the Research and Development Department has changed during this fiscal period.

The first month of this period saw the approval of our Master Plan, this department's prime assignment. And, though the emphasis has shifted since this success, the Department had a busy thirteen months. Some of its accomplishments:

- ...publishing of architectural Standards and Guidelines Manuals.

- ...a plan for improving commuter railroad service.

- ...a substitute plan for conversion of commuter service to buses.

- ... studies of suburban bus lines and the acquisition of private carrier lines.

- ... prepared estimates of future traffic for all extensions and for rail and bus commuter plans.

- ... conducted studies for short-range schedule and service improvements for central subway.

- ... planning and conduct of an intercity streetcar design conference.

- ... assistance in preparing successful technical studies grant application for Southwest Corridor Project.

- ... supervised completion of graphics and directional information for modernized Arlington Station.

- ... developed a construction site signing program.

The Department also participated with other agencies in the work of the Eastern Massachusetts Regional Planning Project. The Project is preparing long-range regional transportation and land use plans. (Other participating agencies include: the Metropolitan Area Planning Council, the Massachusetts Department of Public Works, the Massachusetts Department of Commerce and Development, the U.S. Department of Housing and Urban Development, and the U.S. Department of Transportation.)

PERSONNEL DEPARTMENT

Transportation is a business of, by, and for people. As a result, the importance of the Personnel Department cannot be overstated.

The third fiscal period was a busy one for our Personnel Department as evidenced by the following:

In the field of labor relations, in addition to the regular work load — processing grievances, inter-

preting and implementing labor contracts — the department consummated new collective bargaining agreements covering wages, hours, and working conditions with Local 105, American Federation of Technical Engineers, AFL-CIO; Carpenters' District Council of Boston and Vicinity, AFL-CIO; Local 651, International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Forgers and Helpers; Local 3, International Brotherhood of Firemen, Oilers, Powerhouse Employees, Operators and Maintenance Men (two contracts, one governing employees engaged in seasonal heating plant operations and the other in power plant operations); Local 877, International Union of Operating Engineers, AFL-CIO; Local 717, International Brotherhood of Electrical Workers, AFL-CIO (electrical motor workers); and Local 104, International Brotherhood of Electrical Workers, AFL-CIO (power transmission and distribution employees, only).

For the third consecutive fiscal period, no expenditures were required for arbitration of labor disputes, grievances, or contract negotiations.

The Labor Relations Section also effected a maternity leave provision, whereby a female employee, at her election, is entitled to up to six months of unpaid leave time with the right to resume employment after childbirth.

The Personnel Development Section further streamlined its administrative and personnel procedures with new techniques, and the adoption of new forms establishing standard personnel policies throughout the Authority. This section also inaugurated a long-service recognition program with awards to some 1,400 employees with 25 or more years of service.

The training and development aspect of personnel work was also strengthened. Courses were offered ranging from Methods Improvement for Supervisors, to Creative Problem Solving.

A new series of in-house training programs has been offered, with instruction to begin in the next fiscal period. Over 100 employees have already signed up for them.

In conjunction with the Employee Educational Assistance Plan, a library of educational course and program information for all Greater Boston schools was established.

During the period covered by this report, the Compensation and Personnel Services Section posted notices for 384 vacant positions; received

and reviewed 1,433 applications; and processed almost 2,000 personnel requisitions and authorization forms.

A supplemental Medex Plan was provided for retired employees closely matching coverage in effect prior to Medicare.

Our Employment Section was especially active. In January of 1967, following notification of 16,000 applicants for the positions of Operator and Collector, 3,053 individuals took the competitive examination. To date, 551 applicants have been processed.

The Employment Section conducted employee tests as shown here:

Stenographic Testing Program	354
General Intelligence Test	172
Clerical Tests	236

During this fiscal period, 337 employees were hired as follows:

Operators	189
Collectors	25
All other employees	123

In addition to testing employees, 5,051 examinations were administered to present employees and persons being processed for employment.

The Civil Defense Section has worked out a program with the Massachusetts Port Authority whereby the personnel and the general public at Logan Airport will utilize MBTA tunnels as shelters. Four hundred (400) medical kits, providing medical supplies for 120,000 people for 30 days, have been stored at Broadway Station for the downtown retail complex. A Medical Self-Help training program for MBTA employees has been coordinated with State Civil Defense personnel.

TREASURER'S DEPARTMENT

Evidence of the work of the Treasurer's Department can be seen in the financial summary at the beginning of this report and the Financial Statements at the rear. But this department, too, plays a dual role in the Authority's life. While dealing with today's receipts it, too, must look to and act for the future.

After months of studying the nation's financial climate — along with attendance at country-wide orientation meetings — the Authority, under the direction of the Treasurer's Department (and with the assistance of its bond counsel and financial adviser)

negotiated the first bond issue in the history of the Massachusetts Bay Transportation Authority.

The negotiated sale was in the amount of \$110,000,000. The underwriting firms for this financial first were White, Weld & Co., Smith, Barney & Co., and Estabrook & Co. The average interest rate for the entire issue is 3.79% and the Authority's bonds were well accepted by the financial community. The excellent timing, and the favorable bid received — in a bond market which has been most discouraging to public bodies for the last two years — testified to the soundness of the Authority's decision to negotiate its first long-term bond issue.

This all-important initial bond issue will cover expenditures for our modernization and expansion program for approximately eighteen months to two years.

In mid 1967, the Treasurer's Department installed a new IBM 360, Model 40 Computer. This highly sophisticated equipment has already been put to good use by our Engineering and Construction Department, in connection with our rapid transit extensions and station modernization projects. The Treasurer's Department is developing systems which will apply the computer to the areas of personnel, payroll, revenue, materials, accounting, and project cost control.

ENGINEERING AND CONSTRUCTION DEPARTMENT

Where the action is. The function of the Engineering and Construction Department may be stated as building for the future — right now.

The activity has been so constant that space permits only a listing of the progress made by the department building our modernization and expansion program.

... agreement with Department of Public Works — Haymarket-North Project.

... contract let for design engineering services for a grade separated crossing — South Shore Project.

... contract let for modernization of Bowdoin Station.

... contract let for construction of grade separation structures — South Shore Project.

... agreement with Union Freight Railroad Company for relocation of tracks and facilities — Haymarket-North Project.

... contract let for architectural and engineering services for modernization of Essex Station.
 ... contract let for construction of new Kenmore Surface Station.
 ... contract let for survey services — Southwest Corridor Project.
 ... agreement with Metropolitan District Commission for construction of retaining wall — South Shore Project.
 ... contracts let for design and installation of signal system and rectifier unit substation equipment — South Shore Project.
 ... agreement with Boston Redevelopment Authority — Central Business District Project.
 ... contract let for architectural and engineering services at Columbia, Fields Corner, and Ashmont Stations.
 ... award of \$484,484 grant from HUD — Southwest Corridor Project.
 ... contract let for construction of roadbed and structures — South Shore Project.
 ... opening of Arlington Station, first station completed in Station Modernization Program.
 ... contract let for grading and drainage work — South Shore Project.
 ... construction of Haymarket-North tunnel and related facilities including a new North Station begun.
 ... Freedom Trail Information Booth on Boston Common completed.
 ... contract let for escalator at Airport Station.
 ... contract let for preliminary and final design of South Cove Tunnel — Southwest Corridor Project.
 ... contracts let for preliminary and final design of Wollaston, and Quincy Center Stations — South Shore Project.
 ... contract let for preliminary design — Harvard-Alewife Brook Project.
 ... contract let for escalator at Bowdoin Station.
 ... agreement with Boston Redevelopment Authority — Downtown Waterfront-Faneuil Hall Urban Renewal Project.
 ... contract let for preliminary and final design of segment of Southwest Corridor Project.
 ... contract let for preliminary design report beyond Braintree — South Shore Project.
 ... agreement with Jordan Marsh for spur track at

no expense to Authority — South Shore Project.
 ... contract let for modernization of Airport Station.
 ... contracts let for architectural and engineering services for modernization of Maverick, Orient Heights, and Kenmore Stations.
 ... agreement with Department of Public Works — Southwest Corridor Project.
 ... contract let for architectural and design services, North Quincy Station — South Shore Project.
 ... contract let for construction of superstructure of new Neponset River Rapid Transit Bridge — South Shore Project.
 ... contract let for final design of modernization at Haymarket Station.
 ... contract let for modernization of Government Center Station, both Upper and Under, and Aquarium Station.
 Modernization and expansion costs money. Over \$36,000,000.00 in construction contracts have been awarded. This means that in each month of this third fiscal period construction-underway expenditures averaged \$2,782,172.40. Or \$695,543.10 a week; \$139,108.62 a day; \$17,388.57 an hour.
 \$289.80 a minute.

The expenditure of such sums for construction must be controlled. To this end the Engineering and Construction Department has implemented an advanced computer system called Integrated Civil Engineering System.

ICES was developed by the Massachusetts Institute of Technology for the Authority. We are the first transit authority in the world to utilize such a sophisticated system. ICES applications include project scheduling, soil analysis, coordinate geometry, structural analysis, bridge design, and transportation network analysis.

ICES better equips us to meet the challenge of building the future today.

SAFETY AND TRAINING DEPARTMENT

The Authority and its predecessor agencies have always been conscious of their responsibility for the safety of the riding public, and in-house safety programs for employees.

A new directorate, Safety and Training, has been created to continue these vital programs. Headed

by a career employee with wide experience in the fields of accident investigation and safety, the department, even in its relative infancy, has made progress.

A computer control system assists the department in accident prevention with a continual monitoring of all accidents relating to our passenger carrying operations.

A new, two-day course of instruction for all surface lines employees has been instituted. This course deals with the basic skills needed for defensive driving, equipment checkout, emergency procedures, and route operation.

Other duties of operating personnel are discussed by representatives of our Revenue Section, Claim Section, and Public Information Department.

A special course in spotting the cause of delays occasioned by streetcars in the Central District has been established for all Central District starters and inspectors. The aim of this training is to expedite the discovery and speedy correction of trouble to cut down service delays.

Future plans include training programs for all operating personnel; safety programs of a promotional nature for the public; an in-depth survey of working conditions at all Authority locations to cut down on dangerous and costly lost-time accidents.

LAW DEPARTMENT

The Board of Directors authorized the General Counsel to file petitions for the following legislation with the 1967 Legislature:

... a bill relating to the powers of the Authority in constructing, extending, modifying, or improving mass transportation facilities.

... a bill making certain school transportation allowances to cities and towns in the Authority district payable to the Authority.

... a bill providing for the establishment of a police department by the Authority.

... a bill relative to the length and width of motor buses owned by the Authority which may be operated within the limits of the Authority.

... a bill requiring the Authority to award certain contracts to the lowest responsible bidder.

... a bill increasing the amount of bonds which may be issued by the Authority and the amount of contract assistance which may be provided by the

Commonwealth to finance agreements with railroads to provide for passenger service to and from Boston for an extended period.

... a bill further authorizing the Metropolitan District Commission to sell and convey certain land in Cambridge, Arlington, and Belmont to the Authority.

... a bill further regulating conduct in public conveyances.

... a bill further regulating smoking in public conveyances and terminals and stations of the Authority.

... a bill providing certain penalties for pick-pocketing and other illegal acts.

... a bill further regulating loitering and trespassing.

... a bill authorizing the Authority to lease air rights over its transportation facilities.

... a bill authorizing and directing the Massachusetts Department of Public Health to make available to the Authority certain facilities at the Lemuel Shattuck Hospital.

... a bill relative to negotiations between labor organizations and the Authority.

... a bill relative to the sale of real estate by the Authority, allowing the Authority to reject any and all bids and to refuse to sell real estate to the highest bidder if sound reasons in the public interest require otherwise.

... a bill relative to the application of amounts received by the Commonwealth from the investment and use of certain funds received from the excise tax on cigarettes.

... a bill relative to the payment of tolls and fares increasing the fines for fare evasion.

... a bill increasing the fines relative to throwing or shooting missiles.

... a bill amending the definition of "sixty-four cities and towns" contained in the act establishing the Authority, and relating to assessments on the Town of Maynard.

... a bill clarifying the meaning of the law relative to the power of the Authority to provide mass transportation service.

... a resolve providing for an investigation and study by the Metropolitan District Commission concerning flood control of the Muddy River which overflowed in 1962 flooding subway facilities.

ties between Kenmore and Auditorium Stations.

Along with legislative liaison, the General Counsel's office maintains a close relationship with the Advisory Board to the Authority. It is also responsible for all land takings, including temporary and permanent easements, in connection with the construction and operation of our rapid transit extensions. In this area the department must deal with agencies of the Federal Government, particularly the Department of Housing and Urban Development.

The department is responsible for contracts entered into by the Authority. During the third fiscal period the department has been instrumental in the continuance of contractual arrangements providing for railroad commuter service to the district and communities outside the district.

However, short-range, daily work goes on too. A large Claim and Compensation Section, including clerical employees, trial attorneys, investigators, adjusters, and legal assistants, handles the many and involved details of a mass transportation system.

Here's an example. At five past five, one October evening, a middle-aged woman on her way home from work entered Copley Station, and started down the stairs. Suddenly she fell. She was assisted by the starter, who took her name and address. She continued on home.

The following machinery was set in motion. As a matter of course. As part of the daily routine.

The starter made out a report. A station repairman examined the stairs and made out a report on their condition. The Claim Section had a photo taken of the stairway. An investigator took statements from the plaintiff and two witnesses. The medical record was obtained from a local hospital. An adjuster visited the plaintiff.

The case was settled.

POLICE DEPARTMENT

The Authority Police Force, though small, (a Chief, Deputy Chief, thirty-five man unit of Boston Police Officers, two clerical employees) has greatly increased protection of our riding public by reducing crime on Authority property.

This is graphically demonstrated in the following figures which compare the January 1, 1966 to September 30, 1966 period with the same months in 1967:

Robberies decreased	24%
Sexual assaults decreased	53%
Pickpocket-larcenies decreased	40%
Other larcenies decreased	56%
Disturbances and disorderly conduct decreased	12%
Malicious destruction of property (vandalism) decreased	67%

The number of incidents of a criminal nature reported to the Police Department in 1966-1967 period was 18 percent below the 1965-1966 period.

When the latest FBI crime statistics, released September 15, 1967, indicate a nationwide increase in crime of 18 percent and an increase for the City of Boston of 16 percent, the work of our force deserves to be commended. And it has. By the Police Commissioner of the City of Boston.

... October 1966, four officers commended for apprehension and conviction of two armed robbers who held up an employee at Andrew Station.

... December 1966, seven officers commended for solving a stabbing crime in which three sailors were severely hurt at State Street Station.

... April 1967, four officers commended for preventing a suicide at Park Street Station.

... June 1967, one officer commended for arrest of four pickpockets at Northampton Station.

Police work is not all investigation, arrests, and statistics. A good police force must be involved in the community it serves. And the Authority force is so involved.

The department maintains liaison with police departments in the 79 communities of the Authority district, the State Police, FBI, U. S. Attorney, and other Federal agencies. The department participates in meetings with the Massachusetts Chiefs of Police, the Greater Boston Police Council, the National Conference of Christians and Jews Police-Community Programs, and the Catholic Interracial Council.

It cooperates with the school officials in the area; notably with the Youth Service Council of the Boston Public School System. In addition to distribution of a highly praised anti-vandalism pamphlet, a poster contest on vandalism was sponsored throughout the Boston school system. Prizes were awarded to win-

ners of the contest in high school and junior high school levels, in ceremonies carried by local television. The winning posters and examples of other anti-vandalism posters were featured in a large downtown department store display.

One of the most important steps taken in this fiscal period was the installation of closed circuit television to monitor activities at Dudley Station. In the ten months since its installation, there has been a 90 percent reduction of crime in this station.

Similar closed circuit cameras will be installed at other stations in the near future.

OPERATIONS DEPARTMENT

The responsibilities of the Operations Department are many faceted.

It faces the future, intimately involved in any planning for any new transportation facilities. It confronts the present, involved in the day-to-day operations of the fifth largest mass transportation system in the country.

The management reorganization previously described has increased the responsibilities of this key department. The challenge has been met. In July of 1967, a new approach to cleanliness in Authority stations — the Station Sanitation Program — was put under the aegis of the Director of Operations.

Among the major achievements of the Operations Department in the thirteen month period under review are:

- ... station names changed to end confusion and create a cohesion attuned to our new color coding system for rapid transit lines.
- ... two-way radios installed in 18 new buses.
- ... the Equipment Engineering and Maintenance Department placed in service 210 new buses.
- ... Equipment Engineering and Maintenance also made and installed over 600 multi-colored strip maps in Authority vehicles under our color coding of routes.
- ... the Operations Planning Section made thorough studies of suburban railroad service and made recommendations for alternatives to the existing arrangements with area railroads in the event of cessation of the subsidy arrangements.
- ... Operations Planning also investigated opera-

tions of suburban bus service in the district, with particular attention to the Eastern Massachusetts Street Railway Company. (Shortly after the close of this third fiscal period the Authority and Eastern Mass. announced an agreement in principle whereby the Authority would purchase all the intrastate transportation business of the Eastern Mass.)

... the Industrial Engineering Office has continued its assistance to E. E. & M. in a long-range program to design and install improved production and maintenance scheduling controls at Everett shops.

... Industrial Engineering has also provided a Programmed Methods Improvement course to supervisors and foremen.

... the Private Carrier Operations Section, through close daily supervision of railroad and bus operations, has succeeded in maintaining these vital commuter services more efficiently. Comparing the present thirteen month period with that immediately preceding, the adjusted cost of service on subsidized lines of the New Haven Railroad shows a decrease of \$140,316.00.

Service is, of course, the main concern of the Operations Department. To better serve our public, several service changes were effected. One of the most notable changes was institution of express bus service from Watertown and Newton to downtown Boston over the Massachusetts Turnpike.

This service utilizes new, air-conditioned, high-speed transmission buses to close the distance between the city and the suburbs safely, economically. In just 17 minutes. It was an instant success. From a first day total of 762, the average number of daily passengers grew to over 2,600 passengers within three months of its inception.

As a result, the Authority plans to add another Turnpike express bus route late in 1967.

And, of course, the exceptional crises arose. The Operations Department successfully handled the throngs that came to Boston during the World Series and coped with an even larger, American Legion crowd when that organization held its national convention in the Hub.

Financial Statements

The balance sheet and statement of long-term debt of the Massachusetts Bay Transportation Authority as of September 30, 1967, and the related statements of revenue and cost of service, unreimbursed cost of service, and source and disposition of funds for the thirteen month period ended September 30, 1967, together with notes relating to these financial statements are appended to this report.

Respectfully submitted,
Board of Directors
Massachusetts Bay Transportation Authority

Charles C. Cabot

CHARLES C. CABOT, Chairman

William J. Fitzgerald

WILLIAM J. FITZGERALD

Robert P. Springer

ROBERT P. SPRINGER

Philip Kramer

PHILIP KRAMER

Forrest I. Neal, Jr.

FORREST I. NEAL, JR.

December 29, 1967

ARTHUR ANDERSEN & Co. BOSTON, MASSACHUSETTS

To the Board of Directors,
Massachusetts Bay Transportation Authority:

We have examined the balance sheet and statement of long-term debt of MASSACHUSETTS BAY TRANSPORTATION AUTHORITY (a political subdivision of the Commonwealth of Massachusetts) as of September 30, 1967, and the related statements of revenue and cost of service, unreimbursed cost of service, and source and disposition of funds for the thirteen month period ended September 30, 1967. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the accompanying financial statements present fairly the financial position of the Massachusetts Bay Transportation Authority as of September 30, 1967, and the results of its operations and the source and disposition of funds for the thirteen month period ended September 30, 1967, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Arthur Andersen & Co.

Boston, Massachusetts
November 17, 1967.



MASSACHUSETTS
BAY
TRANSPORTATION
AUTHORITY

BALANCE SHEET — SEPTEMBER 30, 1967

ASSETS

TRANSPORTATION PROPERTY, at cost:		
Transportation property	\$204,332,012	
Construction in progress	17,863,569	
	<u>\$222,195,581</u>	
Less — Reserve for depreciation (Note 6)	78,095,653	\$144,099,928
SPECIAL FUNDS, cash, Certificates of Deposit and U. S. Government Securities, at cost:		
Construction funds, held by the bond fiscal agent	\$ 61,899,228	
Other construction funds	17,781,609	
Federal grants (Note 7)	714,965	
Other special funds	<u>310,353</u>	80,706,155
CURRENT ASSETS:		
Cash	\$ 3,656,669	
Certificates of Deposit and U. S. Government Securities, at cost	32,610,702	
Accounts receivable —		
Commonwealth of Massachusetts	4,305,646	
Other	2,866,802	
Materials and supplies, at average cost	2,465,152	
Prepaid expenses	<u>188,342</u>	46,093,313
DEFERRED CHARGES:		
Unamortized expansion and modernization costs (Note 1)	\$ 7,292,487	
Other	<u>1,228,668</u>	8,521,155
		<u><u>\$279,420,551</u></u>

LIABILITIES

LONG-TERM DEBT, less current maturities, see accompanying statement (Note 8)		\$239,881,150
UNREIMBURSED COST OF SERVICE (Note 6)		(5,725,885)
CURRENT LIABILITIES:		
Current maturities of long-term debt	\$ 4,204,260	
Notes payable	30,000,000	
Accounts payable	3,252,615	
Accrued liabilities —		
Payroll	884,109	
Interest	1,249,353	
Other	1,008,210	
Unredeemed tickets and tokens	<u>446,276</u>	41,044,823
DEFERRED CREDITS		104,648
FEDERAL GRANTS — UNAMORTIZED PORTION (Note 7)		<u>4,115,815</u>
		<u><u>\$279,420,551</u></u>

The accompanying notes are an integral part of these financial statements.

**Statement of Revenue and Cost of Service
for the thirteen month period ended
September 30, 1967**

OPERATING REVENUE:	
Transportation	\$43,282,826
Other	850,812
	<u>\$44,133,638</u>
OPERATING EXPENSES:	
Transportation service	\$35,079,292
Maintenance	13,778,572
Electric power	3,106,973
Depreciation (Note 6)	6,260,683
General and administrative expenses —	
Salaries and wages	4,338,763
Employee pension and insurance benefits (Notes 3 and 5)	5,545,613
Injuries and damages (Note 4)	2,335,024
Other	921,701
	<u>\$71,366,621</u>
Operating loss	\$27,232,983
OTHER INCOME , including interest of \$4,284,723	(4,486,227)
INTEREST EXPENSE , including \$6,631,264 on long-term debt	8,828,329
RAILROAD COMMUTER SUBSIDIES , Authority's share of financial assistance to the Boston & Maine and New York, New Haven, and Hartford Railroads (Note 2)	182,765
Cost of service in excess of income	<u>\$31,757,850</u>

**Statement of Unreimbursed Cost of Service
for the thirteen month period ended
September 30, 1967**

BALANCE, August 31, 1966	\$ 3,576,401
ADD — Cost of service in excess of income for the thirteen month period ended September 30, 1967	31,757,850
DEDUCT:	
Cost of service reimbursed by the Commonwealth of Massachusetts to be assessed to the cities and towns constituting the Authority	(24,476,135)
Contract Assistance, portion of the cost of service paid by the Commonwealth of Massachusetts in accordance with a contract for financial assistance between the Authority and the Commonwealth, pursuant to Chapter 563 of the Acts of 1964	(4,780,939)
State diesel and gasoline fuel taxes reim- bursable to the Authority in accordance with Section 2 of Chapter 563 of the Acts of 1964	(245,789)
Amortization of Federal grants (Note 7)	(105,503)
BALANCE, September 30, 1967 (Note 6)	<u>\$ 5,725,885</u>

The accompanying notes are an integral part of these financial statements.

**Statement of Source and Disposition of Funds
for the Thirteen Month Period Ended September 30, 1967**

CASH BALANCE — AUGUST 31, 1966

\$1,940,014

FUNDS WERE PROVIDED FROM:

Commonwealth of Massachusetts — To be assessed to the cities and towns constituting the Massachusetts Bay Transportation Authority:

Amount due on the 1966 deficit	\$ 14,103,052
Advance on the 1967 deficit	22,000,000
Contract assistance in accordance with Section 28 of Chapter 563 of the Acts of 1964	4,540,779
Contract assistance in accordance with Section 2 of Chapter 24 of the Acts of 1967	686,490
State diesel and gasoline fuel taxes reimbursable to the Authority in accordance with Section 2 of Chapter 563 of the Acts of 1964	214,173
Proceeds from the sale of 1967 series A Bonds	110,000,000
Federal grants	4,221,318
Sales of property	381,599
	<u>\$156,147,411</u>

FUNDS WERE USED FOR:

Cost of service in excess of income	\$31,757,850
Less:	
Depreciation charges to cost of service which did not require an expenditure of funds	<u>(6,260,683)</u>
Payment of Railroad Commuter Subsidies — Commonwealth of Massachusetts portion	1,638,795
Purchase of Certificates of Deposits and U. S. Government securities, net of sales	17,707,258
Payment of long-term debt	3,858,259
Additions to special fund accounts	59,187,164
Expenditures related to the expansion and modernization of the transportation system	2,516,570
Additions to transportation property	19,421,480
Payment of short-term notes, net of receipts	24,000,000
Other uses	604,063
	<u>\$154,430,756</u>

NET INCREASE IN CASH

1,716,655

CASH BALANCE — SEPTEMBER 30, 1967

\$3,656,669

The accompanying notes are an integral part of these financial statements.

Statement of Long-Term Debt (Note 8)

September 30, 1967

Massachusetts Bay Transportation Authority General Transportation System Bonds, 1967 Series A, dated March 1, 1967, payable in annual installments on March 1 — interest is payable semiannually on March 1 and September 1. The proceeds of the sale of the 1967 Series A Bonds were required to be used for payment of \$40,000,000 of Bond Anticipation Notes outstanding and the balance of \$70,000,000 to be deposited in the Bond Proceeds accounts. These bonds were issued to provide funds for the following purposes —

Purpose	First Principal Payment	Year of Maturity	Approximate Annual Payment	Average Interest Rate	
Express service transportation facilities	1969	2007	\$1,900,000	3.79%	\$ 74,000,000
Agreement with railroads	1968	1982	325,000	3.75	5,000,000
Buses and other purposes	1968	1979	325,000	3.75	3,800,000
Local service transportation facilities	1969	2007	50,000	3.79	2,000,000
Capital cost of certain transportation facilities, including yards, shops and rolling stock	1969	2007	650,000	3.79	25,200,000
					<u>\$110,000,000</u>

Metropolitan Transit Authority Bond, payable in semiannual installments of \$500,000 to December, 2020 — Interest payable is the interest payable by the Boston Metropolitan District on their contra debt and refunding issues, which for the thirteen month period ended September 30, 1967 was 2.53%

\$ 53,300,372

Rapid Transit Bond, payable in annual installments of \$536,259 to November, 2024 — interest is the actual interest on the City of Boston Transit Debt less income collected on the City's transit debt sinking funds, which for the thirteen month period ended September 30, 1967 was 3.52%

\$ 31,103,038

EQUIPMENT SERIAL BONDS:

Year of Maturity	Approximate Annual Payment	Interest Rate		
1970	\$ 16,000	2.00%	\$ 47,000	
	130,000	2.40	390,000	\$ 437,000
1971	84,000	1.50	\$ 335,000	
	139,000	3.10	556,000	891,000
1973	46,000	2.50	\$ 270,000	
	90,000	3.50	540,000	810,000
1974	8,000	3.00		53,000
1975	122,000	3.00		964,000
1977	218,000	3.00		2,186,000
1978	207,000	3.00		2,054,000
1981	127,000	1.50		1,779,000
1987	127,000	2.90		2,550,000
1988	131,000	2.90		2,751,000
1993	168,000	3.00	\$4,392,000	
	100,000	3.20	2,700,000	7,092,000
	<u>\$1,713,000</u>			<u>\$21,567,000</u>

CONSTRUCTION BONDS:

2.00%, payable \$102,000 per annum to November 21, 1979, and \$4,590,000 on November 25, 1979	\$ 5,916,000
1.50%, payable \$84,333 per annum to March 1, 1981, and \$3,781,667 on March 1, 1981	4,962,333
2.10%, payable \$22,000 per annum to January 15, 1982, and \$990,000 on January 15, 1982	1,320,000
2.75%, payable \$47,000 per annum to March 1, 1983, and \$2,115,000 on March 1, 1983	2,867,000
2.30%, payable \$10,000 per annum to March 1, 1984, and \$450,000 on March 1, 1984	620,000
3.00%, payable \$55,000 per annum to July 1, 1988, and \$2,475,000 on July 1, 1988	3,630,000
3.60%, payable \$69,667 per annum to February 1, 1989, and \$3,135,000 on February 1, 1989	4,667,667
3.50%, payable \$19,000 per annum to September 15, 1990, and \$855,000 on September 15, 1990	1,292,000
3.20%, payable \$40,000 per annum to April 15, 1993, and \$1,800,000 on April 15, 1993	2,840,000
	<u>\$ 28,115,000</u>
	<u>\$244,085,410</u>
Less — Current maturities of long-term debt	(4,204,260)
Long-term debt	<u>\$239,881,150</u>

The accompanying notes are an integral part of these financial statements.

Notes to Financial Statements September 30, 1967

(1) UNAMORTIZED EXPANSION AND MODERNIZATION COSTS

The Authority has deferred certain expenses related to the expansion and modernization of the transportation system. Such costs include the Authority's share, \$5,000,000, under the original Railroad Contract Assistance Program for the railroads which have temporarily continued passenger service until such time as permanent alternative facilities have been constructed by the Authority. These costs will be amortized by charges to the cost of service over 15 years commencing in 1968.

The other deferred expenses relating to the expansion and modernization of the transportation system will be amortized by charges to the cost of service, commencing with the completion of the initial project for mass transportation.

(2) RAILROAD COMMUTER SUBSIDIES

The legislative act under which the Massachusetts Bay Transportation Authority was established provides for the Authority to enter into and finance agreements with railroads to provide passenger service to and from Boston. Such agreements could extend no later than December 31, 1967, and were to be financed with a bond issue of up to \$5,000,000. In addition, provision was made for the Commonwealth of Massachusetts to provide one-half of the cost, not to exceed \$5,000,000. In the spring of 1967 the funds provided for by this act had been expended.

Under Chapter 24 of the Acts of 1967 the Authority and the Commonwealth of Massachusetts entered into an agreement whereby the Commonwealth has agreed to provide 90% of the cost of financing agreements with the railroads to provide service to and from Boston until June 30, 1968, but not to exceed \$4,500,000. This grant is applicable to costs incurred by the Authority after all costs under the original agreement have been incurred. In accordance with this agreement the Boston & Maine and New York, New Haven, and Hartford Railroads received financial assistance of \$1,821,560 during the thirteen months ending September 30, 1967; \$1,638,795 paid by the Commonwealth and \$182,765 paid by the Authority.

(3) PENSIONS

The Authority has agreed to provide retirement benefits to employees through a contributory pension plan which requires the payment by the Authority of an amount not less than 6% of the total payroll of employees who are members of the plan but, in any event, sufficient to provide for the current cost of the plan and interest on unfunded past service costs net of members' contributions. The total pension expense for the thirteen months ended September 30, 1967 was \$2,950,000, which includes interest on unfunded past service costs but does not include amortization of the unfunded past service costs. The Authority is not legally obligated, under the agreement, to fund the actuarial cost of future benefits to present and retired employees based on past service costs. At September 30, 1967, such unfunded costs approximated \$38,000,000. The actuarially computed value of the vested benefits of the plan as of September 30, 1967 exceeded the pension fund assets by approximately \$11,900,000.

(4) INJURIES AND DAMAGES

The Authority is a self-insurer on claims for injuries and damages to the extent of \$50,000 per accident. Insurance coverage is carried on claims in excess of that amount up to a maximum limit of \$15,050,000 per accident. The Authority accounts for injuries and damages by charges to operating expenses as payments are made. The estimated liability for injury and damage claims not provided for at September 30, 1967, amounts to approximately \$3,800,000.

(5) WORKMEN'S COMPENSATION INSURANCE

Effective May 1, 1965, the Authority became a self-insurer on workmen's compensation claims under the workmen's compensation laws of the Commonwealth of Massachusetts to the extent of \$50,000 per occurrence. Insurance coverage is carried on each occurrence in excess of that amount up

to a maximum limit of \$1,050,000 per occurrence. The Authority accounts for these claims by charges to operating expenses as payments are made. The estimated liability for workmen's compensation claims not provided for at September 30, 1967 amounts to approximately \$600,000.

Prior to May 1, 1965, the Authority was insured for workmen's compensation claims by an affiliate, The Transit Mutual Insurance Company. In September, 1965, the General Court of the Commonwealth of Massachusetts enacted Chapter 687, which provided for the dissolution of The Transit Mutual Insurance Company and the acquisition of its assets and liabilities by the Massachusetts Bay Transportation Authority.

Transit Mutual's reserve for workmen's compensation claims as of May 1, 1965 has been carried over in the accounts of the Authority. The Authority charges payment of claims incurred prior to May 1, 1965 to this reserve.

(6) UNREIMBURSED COST OF SERVICE

The legislative act under which the Massachusetts Bay Transportation Authority was established provides, among other things, that the Commonwealth of Massachusetts shall reimburse the Authority for the net cost of service. The amounts reimbursed are then assessed to the 79 cities and towns constituting the Authority. The net cost of service includes a charge for depreciation equal to the payments on long-term debt during the period.

The Authority provides for depreciation by following the generally accepted method of amortizing the cost of property over its estimated remaining useful life. In the current thirteen month period the Authority provided \$6,260,683 for depreciation of which \$4,005,696 represents payments on long-term debt. The balance of \$2,254,987 has been charged to the unreimbursed cost of service which will be recovered in future years when payments on long-term debt exceed depreciation computed on the estimated remaining useful life of the property.

(7) FEDERAL GRANTS

Under the Urban Mass Transportation Act of 1964, the Department of Housing and Urban Development has approved for the Authority grants aggregating \$16,600,000. The Authority has received \$4,221,318 of this amount. These funds have been used by the Authority to purchase new buses and to modernize and expand mass transportation facilities.

These grants are carried as a deferred credit and will be amortized over the life of the assets as an offset to the applicable depreciation expense. In the current thirteen month period \$105,503 of amortization applicable to the new buses has been credited to the unreimbursed cost of service.

(8) LONG-TERM DEBT

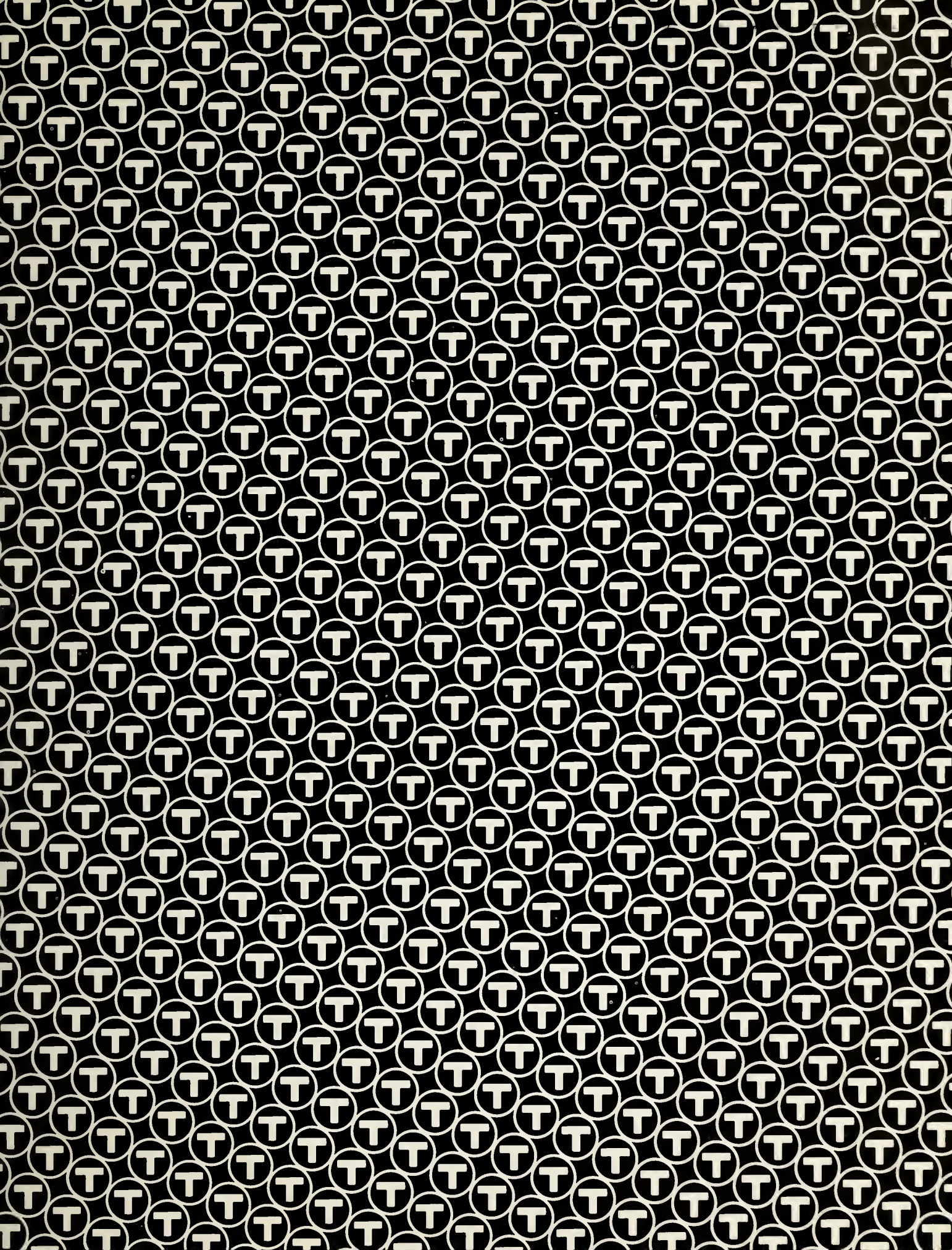
The legislative act under which the Massachusetts Bay Transportation Authority was established provides, among other things, if at any time any principal or interest is due on any bond or note issued or assumed by the Authority and funds to pay the same are not available, the Commonwealth of Massachusetts shall thereupon pay over to the Authority the amount required to meet such obligations.

(9) CONSTRUCTION PROGRAM

The Authority's program for mass transportation within the area constituting the Authority is estimated at \$369,000,000. Financing requirements of the program are expected to be met through the issuance of \$225,000,000 of long-term debt securities. The legislative act authorizing the issuance of debt securities calls for participation by the Commonwealth of Massachusetts in the payment of principal and interest on \$145,000,000 of that amount to the extent of 90% for express service projects and 50% for local service projects or assistance to private carriers. The remaining financing requirements are expected to be met through Federal transit aid, Federal urban renewal funds and sale of certain property.

Expenditures in the program through September 30, 1967, have been financed through the issuance of \$110,000,000 of Massachusetts Bay Transportation Authority General Transportation System Bonds and Federal transit aid funds.

As of September 30, 1967, the Authority has entered into purchase commitments amounting to approximately \$38,000,000.



Massachusetts Bay Transportation Authority
150 Causeway Street, Boston, Mass. 02114

